

In the Claims:

1. (currently amended) A method, for use in a virus-free certificate authority (402), of generating a virus-free certificate (200) certifying that a file is virus-free comprising the steps of:

- receiving (300) a virus-free certificate request for a file from a system (100, 401); the virus-free certificate request comprising a list of one or a plurality of anti-virus programs to be executed on the file by the certificate authority to determine whether the file is virus-free or not;
- determining (304) whether the file is virus-free or not;

if the file is declared virus-free by the virus-free certificate authority (402):

- generating (303, 304) a virus-free certificate (200) comprising a file signature (207) for certifying that said file is declared virus-free by the virus-free certificate authority (402); and
- sending (306) back in response to the virus-free certificate request the virus-free certificate (200).

2. (canceled).

3. (previously presented) The method according to claim 1 wherein the virus-free certificate request comprises:

- a file for which a virus-free certificate is requested.

4. (currently amended) The method according to claim 1 wherein said step of determining whether the file is virus-free or not comprises the further step of:

- executing ~~(304)~~ one or a plurality of anti-virus programs on said file for detecting viruses.

5. (currently amended) The method according to claim 1 wherein the virus-free certificate further comprises:

- a list of the one or plurality of anti-virus programs ~~(208)~~ that have been executed on the file.

6. (currently amended) The method according to claim 1 wherein the virus-free certificate ~~(200)~~ further comprises:

- a file identification ~~(201)~~;
- a virus-free certificate authority identification ~~(202)~~;
- a public key ~~(203)~~ for decrypting the file signature;
- a certificate signature ~~(206)~~ for authenticating the virus-free certificate; and
- an indication of the virus-free certificate validity ~~(204)~~.

7. (currently amended) The method according to claim 1 comprising the further steps ~~(305)~~ of:

- identifying the system ~~(100, 101)~~ where the file and associated virus-free certificate are stored; and
- downloading updates of the virus-free certificate.

8. (currently amended) The method according to claim 1 wherein the step of generating ~~(303, 304)~~ a file signature ~~(207)~~ comprises the further steps of:

- hashing the file to generate a file digest; and
- encrypting the file digest using a private key.

9. (currently amended) A system implementing a virus-free certificate authority (402), said system comprises a processor that executes a program for implementing a method having steps of:

- receiving (300) a virus-free certificate request for a file from a system (400, 401); the virus-free certificate request comprising a list of one or a plurality of anti-virus programs to be executed on the file by the certificate authority to determine whether the file is virus-free or not;
- determining (301) whether the file is virus-free or not;

if the file is declared virus-free by the virus-free certificate authority (402):

- generating (303, 304) a virus-free certificate (200) comprising a file signature (207) for certifying that said file is declared virus-free by the virus-free certificate authority (402); and
- sending (306) back in response to the virus-free certificate request the virus-free certificate (200).

10. (currently amended) A computer program recorded on a computer-readable medium and comprising instructions for executing a method having the steps of:

- receiving (300) a virus-free certificate request for a file from a system (400, 401); the virus-free certificate request comprising a list of one or a plurality of anti-virus programs to be executed on the file by the certificate authority to determine whether the file is virus-free or not;
- determining (301) whether the file is virus-free or not;

if the file is declared virus-free by the virus-free certificate authority (402):

- generating (303, 304) a virus-free certificate (200) comprising a file signature (207) for certifying that said file is declared virus-free by the virus-free certificate authority (402); and
- sending (306) back in response to the virus-free certificate request the virus-free certificate (200).

11. (currently amended) A method, for use in a server (401) or client (400) system, of determining that a file is virus-free comprising the steps of:

- determining (400) whether a virus-free certificate (200) is associated with a file;

if a virus-free certificate is associated with the file:

- authenticating (404) the virus-free certificate (200), said virus-free certificate comprising a certificate signature (206);
- authenticating (407) the file, said virus-free certificate (200) comprising a file signature (207), said file signature certifying that said file has been declared virus-free by a virus-free certificate authority (402); and
- checking the one or plurality of anti-virus programs used to build the virus-free certificate according to one or a plurality of predefined rules.

12. (currently amended) The method according to claim 11 wherein said step of authenticating (407) the file comprises the further steps of:

- decrypting the file signature (207) using a public key (203) comprised in the virus-free certificate (200).
- hashing the file to generate a file digest; and
- comparing the decrypted file signature with the generated file digest.

13. (previously presented) The method according to claim 11 wherein the step of authenticating the virus-free certificate comprises the further step of:

- validating the virus-free certificate.

14. (currently amended) The method according to claim 13 wherein the step of validating the virus-free certificate comprises the further step of:

- determining whether the virus-free certificate is valid or not;

If the virus-free certificate is not valid:

- requesting a virus-free certificate update or an updated virus-free certificate update to a virus-free certificate authority ~~(102)~~.

15. (currently amended) The method according to claim 11 wherein the virus-free certificate ~~(200)~~ further comprises:

- a file identification ~~(204)~~;
- a virus-free certificate authority identification ~~(202)~~;
- a public key ~~(203)~~ for decrypting the file signature; and
- an indication of the virus-free certificate validity ~~(204)~~.

16. (currently amended) A system having a processor that determines that a file is virus-free, said processor executing a program for implementing a method having steps of:

- determining ~~(400)~~ whether a virus-free certificate ~~(200)~~ is associated with a file;

if a virus-free certificate is associated with the file:

- authenticating ~~(404)~~ the virus-free certificate ~~(200)~~, said virus-free certificate comprising a certificate signature ~~(206)~~; and
- authenticating ~~(407)~~ the file, said virus-free certificate ~~(200)~~ comprising a file signature ~~(207)~~, said file signature certifying that said file has been declared virus-free by a virus-free certificate authority ~~(102)~~.-); and
- checking the one or plurality of anti-virus programs used to build the virus-free certificate according to one or a plurality of predefined rules.

17. (currently amended) A computer program recorded on a computer-readable medium comprising instructions for executing a method having steps of:

- determining ~~(400)~~ whether a virus-free certificate ~~(200)~~ is associated with a file;

if a virus-free certificate is associated with the file:

- authenticating ~~(404)~~ the virus-free certificate ~~(200)~~, said virus-free certificate comprising a certificate signature ~~(206)~~; and
- authenticating ~~(407)~~ the file, said virus-free certificate ~~(200)~~ comprising a file signature ~~(207)~~, said file signature certifying that said file has been declared virus-free by a virus-free certificate authority ~~(402)~~; and
- checking the one or plurality of anti-virus programs used to build the virus-free certificate according to one or a plurality of predefined rules.